100

PABLO NATIONAL WILDLIFE REFUGE NARRATIVE REPORT January 3, 1965 to January 1, 1966

REFUGE PERSONNEL

Joseph P. Mazzoni, Refuge Manager, Moiese, Montana Frank L. Kenney, Refuge Manager, Charlo, Montana

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF SPORT FISHERIES AND WILDLIFE FISH AND WILDLIFE SERVICE Charlo, Montana

CONTENTS

		ragi	3
I.	Gen	eral	
	A.	Weather Conditions	
	B.	Habitat Conditions	
		l. Water	
		2. Food and Cover	
II.		llife	
	Α.	Migratory Birds 2	
	В,	Upland Game Birds	
	C.	Big Game Animals. 3 Fur Animals, Predators, Rodents, and other Mammals. 3	
	D.		
	E.	Hawks, Eagles, Owls, Crows, Ravens, and Magpies 3	
	F.	Other Birds	
	G,	Fish.	
	H.	Reptiles	
	I.	Disease	
TIT.	Ref	age Development and Maintenance	
	A.	Physical Development	
	B.	Plantings	
	C.	Collections and Receipts	
	D.	Control of Vegetation	
	E.	Planned Burning	
	F.	Fires	
		4	
IV.	Res	ource Management	
	A.	Grazing	
	B.	Haying	
	C.	Fur Harvest 5	
	D.	Timber Removal	
	E.	Commercial Fishing 5	
	F.	Other Uses	
**	T1 -1	A. Francisco de la companya del companya del companya de la compan	
V.	A.	d Investigation or Applied Research	
	B.	Progress Report 5	
	C.		
	D.		
	E.	* * * * * * * * * * * * * * * * * * * *	
	12.0		
VI.	Pub	ic Relations	
	A.	Recreational Uses 5	
	B.	Refuge Visitors	
	C.	Refuge Participation	
	D.	Hunting	
	E.	Violations	
VII.	-	or Items	
	A.	Items of Interest	
	В.	Photographs	endix
	C.	Signature	ribne

PABLO NATIONAL WILDLIFE REFUGE Narrative Report January 3, 1965 to January 1, 1966

I. GENERAL

A. Weather Conditions

Temperature and precipitation are recorded at Ninepipe Refuge, 13 airline miles south. Weather conditions are essentially the same. The year began and ended with the reservoir completely frozen over. The winter ice did not begin to break up until April 1st, and it set in again December 15, making more than a hundred days when the reservoir was unusable to waterfowl.

B. Habitat Conditions

Water: As can be seen from the chart below (taken from the Annual Water Program), ample water was available for water-fowl needs throughout the year.

Month	1959-1964 Average	Calendar Yr. 1965	Devia	tion
January	3190.7	3194.8	Plus	4.1
February	3193.9	3195.0	11	1.1
March	3190.8	3195.0	11	4.2
April	3199.0	3195.5	Minus	3.5
May	3204.1	3207.0	Plus	2.9
June	3206.5	3206.3	Minus	0.2
July	3205.2	3209.0	Plus	3.8
August	3194.8	3204.1	11	9.3
September	3184.6	3199.3	11	14.7
October	3190.6	3204.7	11	14.3
November	3190.6	3204.4	11	13.8
December	3190.6	3205.2	11	14.6

Food and Cover: Ducks used at least 95% of the standing ripe grain left from the previous year on Montana Fish and Game lands. When the first pintails used the reservoir after the ice broke up on April lst, this grain was their only known source of food.

The reservoir is not a heavy producer of aquatic vegetation, and the sudden five-and-one-half foot rise of the water level in September flooded the mud shoals which in other years provides valuable browse for geese and American widgeon. However, a high number of divers were sustained during the fall.

II. WILDLIFE

A. Migratory Birds

A lengthy discourse on numbers of waterfowl using the refuge becomes less meaningfull when the nearby Flathead Lake is taken into consideration. The south bay of this 250,000 acre lake is within 5 airline miles of the refuge. At the slightest provocation, a change in the water level, ice formation, wind or disturbance by hunters, the ducks and geese flock to Flathead Lake.

Whistling Swans: At a time when no swans were found on the refuge, more than a hundred were counted in South Bay. The largest number counted on the refuge was 43, of which 18 were cygnets. This flock remained from November until December.

Canada Geese: Records indicate a slight increase in days-use from 105,000 in 1964 to 120,000 in 1965. Again, a pair of geese produced a brood on the nesting island. This island has produced a brood almost every year since it was built in 1956 at a cost of \$2,000. Prorated over the years, that's \$222.00 per brood. But additional islands will not cost as much because of the experience learned in this pilot project. It is hoped the BIA Kicking Horse YCC will help provide more such islands to replace the nesting areas lost to the increasing human disturbance of Flathead Lake. The pair of geese using the island, along with 5 other pairs, produced 25 goslings this year.

Snow and White-fronted geese were found in small numbers during the fall. Pablo remained completely covered with ice throughout most of the spring migration.

A Blue goose was checked out of a nearby hunting field by a State Game Department employee who said he'd checked others out in years past.

The rising water in the reservoir covered all the mud flats forcing the geese to find browse elsewhere. This situation caused some phenomenal kills. One small party of hunters shot 22 of the big honkers in a nearby field, one morning. Ultimately, the goose season had to be closed to protect the breeding stock.

Mallards: Mallard use was almost double that of 1964, making up 72% of the total duck use. Redheads were next with 7%, followed by Pintails and Widgeon which had about 6% each. The rest of the ducks are distributed in the following order: Ring-necked, Gadwall, Green-winged teal, Common Merganser, Goldeneye, Scaup,

Canvasback, Bufflehead, Hooded Merganser, Shoveler, Ruddy, Blue-winged Teal and Wood Duck. The Mallards were the most prominent nesters with 50 broods, while the Blue-winged Teal followed with about half that many. All of the other nesters combined made up only a small percent. There were, however, at least 3 Wood Duck broods produced. Coot were present in moderate numbers, usually in association with the Widgeon.

Water and Marsh Birds: Common Loons, Red-necked, Horned, Eared and Western Grebes were all present and undoubtedly nested. One of the most pleasing birds that is always present, in numbers from 4 to 20, is the Great Blue Heron.

Shorebirds, Gulls and Terns: Killdeer, and Avocets nest along the main dike. Both the Common and Black Tern are frequently seen during the summer.

Mourning Doves nest in the Russian olives along the southwest shore, but their numbers remain small.

- B. Upland Game Birds: Due to the change in farming operations; from cereal crops to pasture; from small farms to large; the pheasants continue to decline in Flathead valley. In 1944, for instance, dairy and beef cows numbered 25,000. Today, the number is upward of 60,000. Twenty years ago, 23,000 acres of wheat were grown, last year there was less than 16,000 acres. The little farmers of those days inadvertantley left good cover along their fence rows and between patches of cropland. They did not have the means to do clean farming, the chemical sprays to kill weed cover or the insect food of the birds. Although Pablo offers excellent cover, it is doubtful that the pheasant population ever exceeds 300 birds, or 1 bird for every 7 acres of habitat.
- C. Big Game: Nothing to report.
- D. Furbearers, Predators and Other Mammals: Beaver moved into the reservoir in September and at least two lodges have been built. The muskrat population is held in check by Indian trappers. Tracks in a recent snow indicate an abundance of meadow and deer mice, and some weasels and mink.
- E. Hawks, Eagles, Owls, Magpies, Grows and Ravens: Both Golden and Bald Eagles arrive with the opening of hunting season to share in the cripples. Other predations birds include, Rough-legged, Marsh, Red-tailed, Sparrow and Duck Hawks. A small number of Crows were seen on the refuse in the summer. Magpies and a couple of Ravens are almost always present.

- F. Other Birds: Among the many birds present on the area, the predominant species noted were: Common Redpoll, Solitary Vireo, Yellow-throat, Yellow Warbler and Rufous Humming Bird, besides the great numbers of Starlings, Yellow-headed, Redwinged and Brewer's Blackbirds.
- G. Fish: The reservoir was stocked May 1st, 1964, with 12,000 fingerling rainbow trout. This summer, these rainbows weighed $2\frac{1}{2}$ to 3 pounds and were up to 17 inches in length.
- H. Reptiles: Painted box turtles were frequently seen.
- I. Disease: No known disease found in the area.

III. REFUGE DEVELOPMENT AND MAINTENANCE

- A. Physical Development: One small building was sold and removed from the refuge. The large maintenance building has been almost removed. The remaining timbers will be hauled away as soon as weather permits.
- B. <u>Maintenance</u>: Routine fence repairs, posting and clean-up were carried on during the year.
- C. Plantings: None
- D. Collections and Receipts: None
- E. Control of Vegetation: No spraying or control deemed necessary.
- F. Fires: None
- G. Miscellaneous: A wetlands inventory and map were completed for the area.

IV. RESOURCE MANAGEMENT

A. Grazing: During years of high water, as 1965, Pablo presents some special grazing problems. The finger-like land projections that protrude from the bounday fences along the southwest side of the refuge, are heavily matted with grass, but inaccessable to cattle until the water goes down enough so that they can reach them by crossing deep fresh marsh land. Frank Webster turned his herd in on May 7, on the south side so that, as the water regressed, the cattle could graze north from one of these peninsulas to the next. This year, however, the water remained high, so these land projections were for the most part unused. Deeply matted dead grass from previous years remains on some portions of the refuge where cattle never graze. An examination of the area is being made to see what can be done to achieve better distribution of the 95 head of cattle which use \$35 AUM's each summer. One an-

swer would be to repair the small check dams that were built many years ago to retain water, between the peninsulas mentioned above, after the reservoir is drawn down. When the water is high, these little dams would also serve as bridges connecting the peninsulas and allow freer movement of cattle.

- B. Haying: None.
- C. Fur Harvest: Indian trappers harvested an estimated 40 muskrats and 10 mink from the reservoir.
- D. Commercial Fishing: None.
 - V. FIELD INVESTIGATIONS AND APPLIED RESEARCH

A. Banding:

Geese: In order to better understand the status of the local flock of Canada geese, 47 flighless birds were captured and banded in June. In October, more than a hundred were cannon-netted by the Montana Fish and Game Department, assisted by refuge personnel.

Ducks: Early in October, 132 Pintails and 6 Mallards were banded at Pablo.

B. Censuses: Weekly waterfowl counts were made throughout the year. With the help of Walt Anderson, student assistant from the Bison Range, very thorough study was made of the nesting waterfowl on Pablo.

VI. PUBLIC RELATIONS

A. Recreational Uses:

Fishing: Pablo had an estimated 3,100 visitors in 1965. A thousand of these were fishermen. Beautiful rainbows weighing up to 3 lbs. were regularly taken at the inlet. Fishermen stood elbow to elbow lashing the water, many of them getting their limit in an hour or less.

The refuge is completely lacking in facilities to take care of such numbers of people. The toilet was destroyed in 1958 by vandals and never replaced. Toilets and garbage barrels are needed.

- B. Refuge Visitors: See Ninepipe NR.
- C. Refuge Participation: See Ninepipe NR.

138

D. Hunting: Small numbers of hunters persistently patrolled the refuge boundaries on all sides. On the north and south boundaries, the State Game Department owns hunting areas and maintains checking stations.

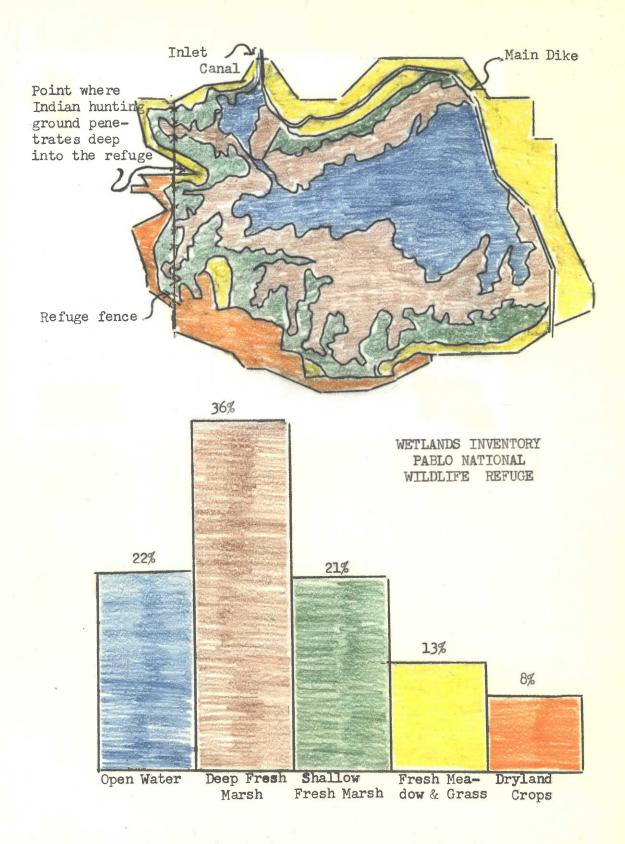
But along the entire west side, the land is held as a part of the Tribal Administrative Reserve. Since an administrative reserve permits the tribe to use any portion of the land, not covered by water, in any way the tribe sees fit, the tribe reserves this land for Indian hunters.

Unrestricted hunting along the west boundary has caused some problems particularly in the sharp wedge of land that penetrates into the refuge a good quarter of a mile. (See wetlands inventory map.) The refuge boundary fence cuts through this piece of land, but the Indian hunters do not respect it. It is hoped that an agreement can be drawn up with the Tribal Council closing the land within the fence to all hunting.

E. <u>Violations</u>: Two Indian boys, aged 15 and 16, were picked up and <u>turned over</u> to the Tribal Council for shooting ducks and pheasants in the above described portion of land. What action was taken, if any, is not known.

SIGNATURE PAGE

	Submitted by:
	Onur 2 Homey (Signature)
Date: San 19, 1966	Refuse Min (Title)
Approved, Regional Office: Du Date: FEB 2 1966 (Signature) Associate Regional Director (Title)	Approved, Bison Range Date: Joe Mazzoni Refuge Manager (Title)





WARNING TO FISHERMEN

Because of the sudden change in the depth of this irrigation water and swiftness of the current it is very hazardous to attempt to stand or wade in this canal.

This marker is placed here in memory of Fisherman Willis C. Taney of Boulder,

Colo., who lost his life on Aug. 13, 1963, in the swirling waters below the drop when he, wearing hip boots, tried to stand in the water of the canal.

Fishermen - Note and remember.

WATERFOWL

REFUGE Pablo							MONTHS OF	January	/\$\(\sigma\)	April	_, 19 <u>65</u>
*						(2)					
1				Weeks	of r	eport	ing p	eriod			
(1)		:		5	•	: _ :	: , :				
Species :	1	:	2	: 3	: 4	: 5	: 6 :	7 :	8 :	9 :	10
Swans:											
Whistling											
Trumpeter		_									-
Geese:	1										
Canada		-			ļ						
Cackling		-									
Brant		-									
White-fronted Snow											
Blue	-	-			-		-				
Other		+									
Ducks:	-			-		-					
Mallard											- 50
Black		-									50
Gadwall	-	-		-	-	-					
Baldpate	-				-						
Pintail		_									
Green-winged teal		-		Reservoi	and adia	cent ponds	were 1009	frogen ov	on fon the	fi not	
Blue-winged teal				nine wee	te of this	reporting	nemi od	110Zell OV	of tor the	TITSU	
Cinnamon teal	-			TILLIC NO.	45 01 01113	TI COOT CITIE	periou.				
Shoveler	-										
Wood		-									
Redhead	-										
Ring-necked											
Canvasback				-							
Scaup	-										
Goldeneye						-					
Bufflehead											
Ruddy		-									
Other		-									±
		-		-		1					
											Party Harris
Coot:											181
0000;											

3-1750 Form NR-1 (Rev. March 1953)

WATERFOWL

(Continuation Sheet)

Thru REFUGE Pablo MONTHS OF January April April , 1965 (2) Weeks o f reporting period (1):Estimated: 14 : 15 : 16 Species 11 12 13 17 18 :Days use: 10 : Swans: Whistling 20 490 31 20 Trumpeter Geese: Canada 20 30 30 10 630 Cackling Brant White-fronted Snow 10 133 Blue Other Total Geese 30 16 763 30 30 Ducks: 200 100 Mallard 50 300 150 200 7.350 Black 20 20 Gadwall 20 420 Baldpate 200 100 100 100 3.500 2.000 Pintail 20 100 100 10 15,610 Green-winged teal 100 50 50 20 1.540 Blue-winged teal Cinnamon teal Shoveler 1.400 10 70 70 50 Wood 10 10 Redhead 10 10 280 Ring-necked Canvasback 200 100 100 50 3.150 Scaup 600 600 9.100 100 Goldeneve 2.100 50 100 100 50 Bufflehead Ruddy OtherC. Merganser 70 1.540 50 50 50 R.B. Merganser 10 10 210 10 Total Ducks 50 2,300 1.410 1,410 570 46,200 0 810 150 150 2,100 Coot:

Total Days Use	Peak Number	Total Production
Swans 490	31	3 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Seese 763	30	Manager and the Company of the Compa
Ducks 7,350	2,300	THE PROPERTY OF
Coots 2,100	150	

SUMMARY

Pri	ncipa	Lfeed	ding ar	reas	Ad.	acent	t MF&C	food
n]	ot s	11+7 (059 mat	rure	etand	ling (grain.	Divina
du	cks u	sed re	eservoi	r as	ice	melte	ed back	from
sh	oreli	ne.				7		
Pri	ncipa	l nes	ting ar	rea _	One	goose	e found	ro Esti
-	nest:	ing i	sland,	no p	roduc	tion	at end	of
	orted	by _	Frank	k Ken	ney		Ten 2	Loverna Co

MIGRATORY BIRDS

(other than waterfowl)

Months of January

Refuge Pablo

Thru

April

195.65

(1) Species	First	2) Seen	Peak Nu		•	4) Seen]	(5) Productio	wob Bugni	(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:		dnasen u	1	2/4		riod n	Wayions P	4	2570	Golden Dwok ha
Common Loon Western Grebe Great Blue Heron	3 10 2	4/12 4/15 3/15	3 60 4	4/30 4/30 4/30	Still "	Present	п Д 2		ive	Maggie Maggie Saven Tros
		n n	# # #	4/30 4/30 4/45 4/45		24 LT	i sanive:	-3	Nwan bu_ nawk vi vii olut	ng-mg
I. Shorebirds, Gulls and	etlibs i	list, 19	E Check	TONS n the A.d seagull",	INSTRUCT s found	t names a	001700 01 biosi	e eAU	ectes:	(I) Sp
Terns: Killdeer	borned g	3/15	25	4/2	Still	Present	other spaces.			
California & Ring-billed Gull	10	4/2	30	4/30	II. Shore II. Dove IV. Pieda	n				
	, bearco	nson cone	or the se	l Belonqa	edJ Tol	broser eg	irst refu		rst Seen:	
							reatest n ust refug		ak Number	,
	Lourse fi								inolioubo	
	Ten milt sa	Jan Lasua	ne the re	(over)	era osta To	redaun I	ated bela		: Lal	

	(1)	(2	2)	- (3)	MJ. GP	4)		(5)		(6)
III.	Doves and Pigeons:	April	PA	January	le and now	190101			e. Paulo	BA FUE	(GPS) VOI
	Mourning dove White-winged dove	yr 9	0.5	(4) 3 ten	87.91	(3) Feak Nurt	l las	(S) S Jahl's		(1) Selos	12
		T nedmis									
IV.	Predaceous Birds:	L Bellon	Date	Tedel	Ba e 1	188	Date	redun		еняй по	anic U
	Golden eagle Duck hawk Horned owl Magpie Raven Crow Goshawk Red-tailed hawk Marsh hawk Barn owl Bald eagle	Previous " " 4 2 1 Previous 1 2	4/15 4/15 4/2	1 3 1 15 2 10 2 1 2 1 2 1 2	4/2 4/2 2/15 4/30 4/30 4/30 4/30 4/30 4/30 4/15	Still	Present "" "" "" "" "" "" "" "" ""		el.	d Marsh i oon Grebe ue heron	Common
							Reporte	d by	Frank K	enn e y	ļ

INSTRUCTIONS

(1) Species:

Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gavilformes to Ciconiiformes and Gruilformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. <u>Doves and Pigeons</u> (Columbiformes)

IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous

Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

UPLAND GAME BIRDS

Refuge Pablo Months of January to April , 19 65

(1) Species	(2) Density		(3) Young Produced	(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks		
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd. Estimated Total	Percentage	Hunting	For Restocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.		
ling—necked Pheasant	Shrub200A Grass1000A Marsh70A Crop resi- due1000A Total2270A	7		1:3	parki	None		300	THE PROPERTY (E)		
					e Co						

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

(2)

(1) SPECIES: Use correct common name	(1)	SPECIES:	Use	correct	common	name	•
--------------------------------------	-----	----------	-----	---------	--------	------	---

DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series Nc. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

- (3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS: Indicate total number in each category removed during the report period.
- (6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

^{*} Only columns applicable to the period covered should be used.

SMALL MAMMALS

Small Mammals

1945) Refuge Small Mammals Year ending April 30, 1965

(1) Species	(2) Density	nt bareb egizik	teno ele:		(3) ovals	ech e	to a	opulatio Di Correct	lsposit			# 1 DE 91	(I)	(5)
ok of North		equirrel use are	ro?	el, curr	nler i in	ray s	al, g	Shar	are Trapping				Total Popula	
Common Name	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hun ting	Fur Harvest	Predator Control	For Re- stocking	For Re-	Permit Number	Trappers Share	Refuge	Total Refuge Furs Shipped	Furs Donated	Mure Destroyed	tion
Meadow mouse	Grassland670A Crop & Hay land	Unknow	spes spys se ja j -es	Non	ө	orson eface In ea need	be ex be pr cres stion	eity to n is to ber of a s inform	nell o 23 ausn Edd	None				H i gh
Skunk, striped	Grassland, Crop and Hayland670A	pes shou such as rdwoods, e etc.	to ty oa d ad d	Cove t no plan	on by	typ Haati Bass Bass Haat	cove info spruc ods.	area of destred mples: d bardwo	the the Exe	1ft				11
Muskrat	Water and	d bluch beerwat and size		10	no l mo l meth	ent S base arvey leman	nagem Id be s. S	BĪA	10	11				Medium
Mink of the story Animal		ch categ on the t falltr	38 3.0	2 47	B Za.	puloi	1 ,710	BIA		11	:83	AVOISI	R (ξ)	Medium
use of unprime-	Marsh1292A	ed to ma of each s donate	iqir stl tul	e si eg l end	o tec	o tet mun lbno:	nun s Tota Lged		seu Der Jud	None	HOITI	1 5205	(H)	Medium
• List removals by	Predator Animal Hunte:	.bob?	FOR	man	100	di u	UMOS	ald be s	ene					

REMARKS:

This report incorporates more accurate information than was possible on earlier submitted form.

			Frank	L	Kenney
Reported	рy	additional team to a constraint to a			more state of commencer systems could be used to see

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; i. e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

(1) SPECIES:

Intol

Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan.)

(2) DENSITY:

Applies particularly to those species considered in removal programs. Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottom land hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) REMOVALS:

Indicate the total number under each category removed since April 30 of the previous year, including any taken on the refuge by Service Predatory Animal Hunter. Also show any removals not falling under headingslisted.

(4) DISPOSITION OF FUR:

On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market, including furs taken by Service personnel. Total number of pelts of each species destroyed because of unprimeness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.

(5) TOTAL POPULATION:

Estimated total population of each species reported on as of April 30.

REMARKS:

Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

INTERIOR--PORTLAND, OREGON

3-1750 Form NR-1 (Rev. March 1953)

WATERFOWL

					(2)					- 1
: <u>:</u>			Weeks	of r	eport	ing p	eriod			
(1) : Species :	1 :		3 :		-	: 6	7 :	8 :	9 :	10
Swans:								1		
Whistling										
Trumpeter						-				
eese:				0.0		70	7.50	3.00	7.00	7.00
Canada	20	20	30	30	30	70	150	120	120	120
Cackling						ļ				
Brant						-	-			
White-fronted						-				
Snow						 				
Blue						-		-		
Other lucks:								-		
Mallard	100	100	100	100	100	1200	1200	500	500	600
Black	100	100	100	100	100	1200	1200	500	300	000
Gadwall	20	20	20	20	20	20	20			
Baldpate	100	100	50	50	50	_50	50			2
Pintail	10	10	10	10	10	10	10			3
Green-winged teal	2.0	20	20	20	20	20	20			
Blue-winged teal	10	1.0	10	10	10	10	20			20
Cinnamon teal	10	10	10	10	10	10	10			2.0
Shoveler	50	50	50	50	50	50	50			10
Wood			Jü		- 10	10	10			1
Redhead	10	10	10	10	10	20	20			50
Ring-necked	20	20	20	20	20	20	20	30	30	
Canvasback	50	50	50	50	50	50	50		7	30
Scaup	100	100	50	50	50	50	50			
Goldeneye	50_	50	75				50			3
Bufflehead							1			
Ruddy										10
Other C. Merganser	50	50	20	20	20	20	20	10	10	
R.B. Merganser	10	10				10	10			
Total Ducks	610	610	480	480	480	1,600	1,610	540	540	99
oot:	150	150	150	150	150	150	150	100	100	7

3-1750 Form NR-1 (Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Pablo						MONTHS OF	Mav 2	то	Sept. 4	_, 1	· % 5
:			Weeks	of r	(2) port	ing p	eriod		Produc		
(1)	:	:	:	:		:	:	- 4	:Estimated		
Species :	11 :	12 :	13 :	14 :	15 :	16 :	17 :	18	:daysause	: see	OTota
Swans:									1	1	1
Whistling										-	-
Trumpeter										-	-
Geese:							4				
Canada	120	200	200	550	550	550	650	750	29,960	16	25
Cackling											
Brant										1	
White-fronted [-	-
Snow										-	-
Blue										-	
Other										-	-
Ducks:								1			
Mallard	600	400	400	2,000	2,000	2,000	2,500	3,000	111,800	50	300
Black									900	-	
Gadwall				2.20					980		1
Baldpate	20	80	80	100	100	100	100	100	8,050		2
Pintail	30	30	30	1.500	1,500	1,500	2,000	2,000	60,830		2
Green-winged teal						the page of	1.4.001112	(orange	980		
Blue-winged teal	200	100	100	20	20	20	20	100	6,020		13/
Cinnamon teal			15.0	- 1 1 1	175	Magail Prock	DUG HALF	L DIVILO Y	. 490		
Shoveler	10	10	10	10	10	10	10	10	3,080		a honi
Vood	10	10	10	10	10	10	20	20	910		-1
Redhead	50	80	80	10	10	10	10	10	2,100		32
Ring-necked		90	90	10	10	10	10	. 10	3.010		30
Canvasback	30	10	10	10	10	10	10	10	2,940		1
Scaup	0.0004000000000000000000000000000000000						0	38 m 1975	3,150		
Goldeneye	30	30	30	10	10	10	1,0	10	2,240	3	75
Bufflehead	1										
Ruddy	10	10	10	10	10	10	10	10	630		
OtherH. Merganser									6.020		
C. Merganser									1,540		
R.B. Merganser						_ %		~	280	- 4	
%%/ Total Ducks	990	850	850	3,690	3,690	3,690	4,700	5,180	209,030		600
Coot	70	20	20	20	20	20	20	500	14,070		40

	Allega Control of the									111111111111111111111111111111111111111		
	Total Days Use	Peak Num	nbe r	Total Pro	duction			SUMM	ARY			
*	Swans	30 1	30	100		Pr	incipal fe	eding are	as Along	the receedi	ng sh	ores
~	Geese 29,960	750		25		an	d nearby g	rain fiel	ds.		1	15
	Ducks 111,800	5,180	67	600		Pr	rincipal ne	sting are	as <u>The ar</u>	tificial Is	sland	was
	Coots 14,070	500		40	To		ain used b			e. The duo	ks ne	sted
	Fine-size (cs)	860°		Ind	20	Re	ported by	Frank	Kenney	4,720		730
			77		1,500	3:00	3	3 -77-7	*7770		and the same	51
		20								8,450		
		000	Lynn	Napar	*****	,	2,000	-,500.	, ,,,,,,,	11,00	50	
					270		259	650	150	27,760	6	25
									IN			

Form Marin 1953

TUTOTO

MIGRATORY BIRDS

(other than waterfowl)

Thru

Refuge Pablo

Months of May

/√d August

19665

(1) Species	First	2) Seen	Peak N	3) umbers	•	4) Seen	I	Productio	vob begni n	(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:		5/l resent	I ILLI	5/1	3 4	rlod	revious Pe	9	eagle wk	Duok ha
Common Loon Red-necked Grebe Horned Grebe Eared Grebe Western Grebe Great Blue Heron	Previous	n n m m n n	30 40 180 240 60 20	9/2 5/4 5/4 5/4 8/1 8/1	Still "" "" "" ""	Present	0 0 0 0 0	Unknown 20 Unknown # 30 0	60 Unknown 90 0	50 100 200 300 110 20
		. 11		1/5					288710	worrado
rik nemen	21 V	 bejroge								
II. <u>Shorebirds, Gulls and</u> <u>Terns</u> :	I Edition addition g period	al ole	.U. Check "tern" uring the	"lippsea	INSTRUCT S found erms as ' urring on	general t	he borred Avold other si	t exU rebto .mot	ecies:	(1) SĮ
Avocat Common Tern Black Tern	Previous " " 20	Period " " 5/4	100 70 30 20	8/1 8/10 7/5 8/1	Still n n	Present " " "	Unknown	Unknown !! !!	Unknown !! !! !!	200 150 80 20
	erned.	ason cond	or the se	species 1		ge record	irst refu	The f	rst Seen:	
	erval of	rni belim	il s ai t	es presen	the speci	lo Tedmu	reatest n		ak Number	. (3) Pe
	ncerned.	season oo	ring the	pecies du	for the a	broom e	gulen faa		st Seen:	(4) La
	Lautos b	ne enolfq	vivade ao	beaud be	ng produc	er of you	dmun hesa		oduction;	(5) Pr
	eq ent au	Erub agul	er odf ge	(over)	ga edt lo	redmuc I	ated total		: Est	

Still Present 0 Unknown Unknown 1 6/1 0 0 0 Still Present 0 1	200
1 6/1 0 0	3
DOTTT TOOCHO T	8
10 7/5 0 2 8 3 2 Still Present 0 Unknown Unknown	-5 28 6
	10
· \b	u O Unknown Unknown

INSTRUCTIONS

(1) Species:

Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gavilformes to Ciconiiformes and Gruilformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. Doves and Pigeons (Columbiformes)

IV. <u>Predaceous Birds</u> (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

3-1750b

UNITED STATES

Form NR-1B DEPARTMENT OF THE INTERIOR SENSE DEPARTMENT OF THE INTERIOR

(Rev. Nov. 1957) FISH AND WILDLIFE SERVICE ab coand maintaged not BUREAU OF SPORT FISHERIES AND WILDLIFE BUREAU ADMITTED

WATERFOWL UTILIZATION OF REFUGE HABITAT

Reported by _	Frank Kenney	Title	Refuge Mar	nager	(1) 1888
(1) Area or Unit Designation	(2) Habitat Type Acreage		(3) Use~days	(4) Breeding Population	(5) Production
n az m kaliksjol	Crops 100A	Ducks	2,261,170	200	600
	Upland 300A	Geese	110.140	10	25
t-moor fallen	Marsh 70A	Swans	490	О	0
estatembre ad vi	Water 2.070A	Coots	485.170	10	40
	Total 2,540A	Total	2.856.970	220	665
	Crops	Ducks		62 60 60 60 63 65	
	CRETITORIOROPOWERHOLD	Geese		3.73.1	
rus fuo trus bar	THE RESIDENCE OF THE PARTY OF T	Swans		***************************************	
	Water	Coots			
SHEAT HYBER	Total	Total	TELM BUT BYON	R	
	6 69 63 64 69 69 69 C9 69			45 CO W 80 85 60	
		Ducks	y dose to day	(I	Company of the Company
type foods;	Upland	Geese	LIDBI 9EUDOGI	4	
des dud sof	Marsh of boston	Swans	ara extends	101	
aler shi l	Water	Coots	aut (Surnarat		
ig emerreavi	Total	Total	or 40 to 50 to 50	60 Cm Ch 60 Cm 40	
water are s	Crops	Ducks	day sat al b		
	Upland	Geese	seem betsbaur	LL.	
	Marsh	Swans	b enf as it go	Y.T.	
sysiq wolla	Water	Coots	mo - 16 fe i sylos	10	
so a has dural	Total	Total			
1 four trans	Crops	Ducks			
	Upland	Geese	CHECOSTRIAL MEDISCONSONIC RECORDANGEME		(
	Marsh	Swans	graner nguozi	CHICAGONIC INCOMPRISONO INCOMPR	CONTROL CONTRO
	Water	Coots		TO THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS	and the Control of th
	Total	Total			
	Crops	Ducks		u savai	(3) Use-c
	Upland	Geese	(Called Control (Control (Cont	OUT THE PARTY OF T	CONTRACTOR CARROLL CHARLES OF CHARLES
	Marsh	Swans			
	Water	Coots			SECTION SHOW PROPERTY.
	Total	Total		April 1	been (d)
		CD 04 CD 08		60 C3 C3 C3 C3 C4	0 0 0 0 0
	Crops	Ducks	White the property of the later of		
	Upland	Geese		tude-concentration and another	Condemons and Constitution of the Constitution
	Marsh	Swans			
	Water	Coots			
	Total	Total			

INSTRUCTIONS

All tabulated information should be based on the best available techniques for obtaining these data. Estimates having no foundation in fact must be omitted. Refuge grand totals for all categories should be provided in the spaces below the last unit tabulation. Additional forms should be used if the number of units reported upon exceeds the capacity of one page. This report embraces the preceding 12-month period, NOT the fiscal or calendar year, and is submitted annually with the May-August Narrative Report.

- (1) Area or Unit: A geographical unit which, because of size, terrain characteristics, habitat type and current or anticipated management practices, may be considered an entity apart from other areas in the refuge census pattern. The combined estimated acreages of all units should equal the total refuge area. A detailed map and accompanying verbal description of the habitat types of each unit should be forwarded with the initial report for each refuge, and thereafter need only be submitted to report changes in unit boundaries or their descriptions.
- (2) Habitat: Crops include all cultivated croplands such as cereals and green forage, planted food patches and agricultural row crops; upland is all uncultivated terrain lying above the plant communities requiring seasonal submergence or a completely saturated soil condition a part of each year, and includes lands whose temporary flooding facilitates use of non-aquatic type foods; marsh extends from the upland community to, but not including, the water type and consists of the relatively stable marginal or shallow-growing emergent vegetation type, including wet meadow and deep marsh; and in the water category are all other water areas inundated most or all of the growing season and extending from the deeper edge of the marsh zone to strictly open-water, embracing such habitat as shallow playa lakes, deep lakes and reservoirs, true shrub and tree swamps, open flowing water and maritime bays, sounds and estuaries. Acreage estimates for all four types should be computed and kept as accurate as possible through reference to available maps supplemented by periodic field observations. The sum of these estimates should equal the area of the entire unit.
- Use-days: Use-days is computed by multiplying weekly waterfowl population figures by seven, and should agree with information reported on Form NR-1.
- (4) Breeding
 Population: An estimate of the total breeding population of each
 category of birds for each area or unit.
- (5) Production: Estimated total number of young raised to flight age.

Refuge Pablo Months of May 2 to September 4, 19.65

(1) Species	(2) Density		(3 You Produ	ng ced	(4) Sex Ratio	R	(5) emova	ls	(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re- stooking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Ring-necked	Shrub200A Grass1000A Marsh70A Crop Residue 1000A Total2270A	7	7	40	1:3		None		300	CENTROSA DURDA (E)
	ed wisloni , nip , e	1.000007				name dela	en t.I.	pyB under	u Ich Euri	10ETH 10B (4)
						4 1		alind o-hip	Certain Local	100 (a)
		7						, 100d		
					s *					

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

de til i il tachmadise

(1)	SPECIES:	Use correct common name.
(2)	DENSITY:	Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area
		of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
(3)	YOUNG PRODUCED:	Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
(4)	SEX RATIO:	This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
(5)	REMOVALS:	Indicate total number in each category removed during the report period.
(6)	TOTAL:	Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
(7)	REMARKS:	Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

^{*} Only columns applicable to the period covered should be used.

3-1750 Form NR-1 (Rev. March 1953)

WATERFOWL

REFUGE Pablo						MONTHS OF	Septembe	r TO	December	, 19 65
:			Weeks	of r	(2) e p o r t	ing p	eriod			
(1)		:			:	:			•	
Species :	1	: 2 :	3 :	4	: 5 :	6 :	7 :	8 :	9 :	10
Swans:									7.1	,
Whistling									14	6
Trumpeter										-
Geese:		7 000	7 000	7 000	7 700	3 000	400	000	700	1)
Cackling	750	1,000	1,000	1,000	1,500	1,000	800	800	700	635
Brant		-								
White-fronted						3.0				ļ
Snow					10	10 10	2	2		
Blue					1	10				
Other										
Ducks:										
Mallard	3.500	6.000	5.000	5.000	10,000	10.000	25,000	25,000	25,000	25.000
Black	5	0.000	7,000		10.000					
Gadwall	100	100	50	50						100
Baldpate	1,000	2,000	1,000	1,000	8,000	1,000	2,000	2,000	1,000	1.000
Pintail	2,000	3.000	1.000	1.000	5,000	500	500	500	500	500
Green-winged teal	150	150	200	200	500	500	500	500	1,000	1.000
Blue-winged teal	100		10	10	10					
Cinnamon teal							1			
Shoveler	10	10				20	20	20		
Wood	20	20				20	20	20		
Redhead	10	200	100	100	1.500	2,800	3,000	3,000	5,000	5,000
Ring-necked	10	100			200	1.500	1.500	1.500	1.500	1,500
Canvasback	30	30	20	20	500	100	100	100	100	100
Scaup	10	10			100	100	100	100	100	1.000
Goldeneye	10	10		50	100	100	100	100	1.50	150
Bufflehead						20	150	150	150	150
Ruddy	10	10	10	10	20	20	20	20	20	20
Other Hooded Mergans					20	20	20	20	20	20
Common Merganser	150	150	50	50	100	100	100	100	20	20
Red-breasted Mergan	ser		- 1							
Total Ducks	7,110	11,840	7,440	7,490	26,050	16,800	33,130	33,130	34,560	35,560
Coot:	500	800	800	800	4,000	1,000	1,000	1,000	1,000	1,000

WATERFOWL (Continuation Sheet)

:	offi V	Weeks	of		2) rting	peri			(3) Estimated	: (4) : Production
(1) : Species :	11	and the second second	13	14	15 :	16:	17	18	waterfowl days use	:Broods:Estimate : seen : total
Swans: Whistling	42	40	I data r	601999 8 43	34				1,253	2
Trumpeter	12	dr⊙r								
Geese:			21 - 2	attentes.	bayding r	o beats i	n fant s	rould he	mistad:	
Canada	630	760	880	800	480	pe uringe d	n two or	more are	89,145	LOE of the
Cackling	-	100701	1000000	2017 1700 1700	dunal ta	ead on all	servatio	ra end ac	entraj interiorista una	PRINTERS OF A TANKEN
Brant						:				
White-fronted	3.4		NA COLUM	\$5.00 A 15055 AL 100	2011 F-10 T-10	, yware on	saart fo	r each ap	168	
Snow	4.44						•		154	
Blue						•			-24	
Other Total geese	630	760	880	800	480	•	1.		89.467	
Ducks:		100	2 1		114 114	•			9701107	
Mallard	40.000	40.000_	40,000	40.000	10.500	100_	Z		2.170.700	
Black	40.000	40.000	40,000	10000	10.000		areas.		2 (CA) (CA)	
Gadwall	100	1.00	100	100	100	ION	a spaces	Specia	66,300	ratio per atvent
Baldpate	1.000	1.000	500	500	ed on fo	ra. othar	81.50760	DOCALLIA	161 000	12 TUBE - CD-0
Pintail	500	500	100	100	100	~			110,600	
Green-winged teal	500	500	500		500	MITTOTALE	Regura 8	LISTO NE	50 400	1
Blue-winged teal						14	(Aust		970	
Cinnamon teal						Ü	0.		7.1	
Shoveler	50	50	50	50	50	1-4	174		2,310	
Wood					Repo	田	(m)	NE IN RECOR	300	
Redhead	5,000	5,000	100	100	100	O	D		217,070	
Ring-necked	1,500	500	10	300	300	Н	H		72,940	
Canvasback	100	100	40	50	50				10,080	
Scaup	1,000	1.000	10	150	150	dpal res	17 DE 91.01	8	26,810	
Goldeneye	150	1.100	1.100	1.100	100	reserion			30.310	
Bufflehead	100	100	50		50	L MDelc.	DIAMES "	dis report	6.790	Troo Tu
Ruddy	20	20	20	20	20	TISTUS)	hoteron	ntar). Maa	1.820	01-000
Other Hooded Merg.	20	70	70	70	70	Ther Lee	mus grai	B Unicati	2.940	markov /
Common Merg.	20	50	2.000	2,000	20	•	•		34,510	
Cook: Total Ducks	50,060	50,090	44,650	45,090	12,110	110	•	SUQUARY	2,906,190	
COOT:	1,000	500	500	50d or	rer) 300				102,900	

	(5) Total Days Use:	(6) (7) Peak Number: Total Product	ion SUMMARY
Swan		43 0	Principal feeding areas Waterfowl utilized nearby
Gees	89,467	1,520	grain fields, particularly the green browse of the winter wheat. Divers apparantly found ample food in the reservoir.
Duck	s 2.906.190 :	50,090	Principal nesting areas
Coot	102.900	001,000	300 Hz + 32,940
	raler	20. 20 20	Reported by Frank L Kenney
Fig.	INST	TRUCTIONS (See Secs. 7531 th	rough 7534, Wildlife Refuges Field Manual)
(1)	Species:	reporting period should be	isted on form, other species occurring on refuge during the added in appropriate spaces. Special attention should be given and national significance.
(2)	Weeks of Reporting Period:	Estimated average refuge p	
(3)	Estimated Waterfowl Days Use:	Average weekly populations	x number of days present for each species.
(4)	Production:	breeding areas. Brood cou	produced based on observations and actual counts on representativents should be made on two or more areas aggregating 10% of the es having no basis in fact should be omitted.
(5)	Total Days Use:	A summary of data recorded	under (3).
		2 22 1 22 1 27	
(6)	Peak Number:	Maximum number of waterfow	l present on refuge during any census of reporting period.

The Ann

Interior Duplicating Section, Washington, D. C. 1953 Cont. NR-1

3-1751 Form NR-1A (Nov. 1945)

MIGRATORY BIRDS

(other than waterfowl)

Refuge Pablo

than waterfowl) Thru
Months of September 19565

(1)	(2	-		3)	1	4)			wab beauti	(6)
Species	First	Seen	Peak Nu	umbers_	Last	Seen	Number	Production Total #	Total	Total Estimate
Common Name	Number	Date	Number	Date	Number	Date	<u>Colonies</u>		Young	Number
. Water and Marsh Birds:		resent	i Alde	12/23	2	bo,fT	evious Pe	<u> </u>	2(10)	Golden Duck ha
Common Loon Red-necked Grebe Eared Grebe	Previous	Period	50 100	9/15 9/15	10	12/15 10/1	81: 15			50
Western Grebe	11	11	300 110	9/15 9/15	Unknown 10	Unknown 12/15	10		d-talled egged nav	
Great Blue Heron	11	ii ghigga	20	9/15	Still	Present	n	<i>"</i>	awk	20
	-	- H	17	64,41	j.	31			olwari I	Sparrow
Shorebirds, Gulls and	Tolliba I	list, 193 ety. In	.U. Check	n the A.C	bere's	t names a	he corred		189103	
Terns: bebbn od blands	gddition g period	ritrogin	edi gairu	refuge o	ne galian	sected one	other sp	order Lora,		
Terns: Killdeer	Previous	Period	200	9/1	10	11/1	other sp	form.		20
Terns: Killdeer Avocet	Previous	Period	200 150	9/1 9/1	10	11/1 9/15	other sp.	form.		150
Terns: Killdeer Avocet Common Tern	Previous	Period	200	9/1	10	11/1	other sp.	form.		
Terns: Killdeer Avocet	Previous	Period	200 150 80 20	9/1 9/1 9/1 9/1	10 10 80 20	11/1 9/15 10/1 10/1	other sp e spaces ficance.	lotm. priat aigit		150 80 20
Terns: Killdeer Avocet Common Tern Black Tern	Previous	Period	200 150 80 20	9/1 9/1 9/1 9/1	10 10 80 20	11/1 9/15 10/1 10/1	other sp.	lotm. priat aigit	.sowl Jas	150 80 20
Terns: Killdeer Avocet Common Tern Black Tern	Previous	Period H H H H H H H H H H H H H	200 150 80 20	9/1 9/1 9/1 9/1	10 10 80 20	11/1 9/15 10/1 10/1	other sp e spaces ficance.	form, priat signi	est Sooms	150 80 20
Terns: Killdeer Avocet Common Tern Black Tern	Previous	Period Heriod Heriod	200 150 80 20	9/1 9/1 9/1 9/1 9/1 00000000000000000000	10 10 80 20	11/1 9/15 10/1 10/1	other spaces ficance.	Porm, print signi The f		150 80 20 17 (S)
Terns: Killdeer Avocet Common Tern Black Tern	Previous	Period Henricher Bonne Henricher Bonne Henricher Bonne Henricher	200 150 80 20	9/1 9/1 9/1 9/1 9/1	10 10 80 20 yr	11/1 9/15 10/1 10/1	other spaces ficance. Itsance. Irst refureatest nativest	form, prist signification of the fine grant the grant th	ak Nuzium	150 80 20 20 17 (2) 81 (4)

	(1)	(2	2)	(3)	ALOKA E	1011/4	4)		(5)	(6)
III.	Doves and Pigeons: Mourning dove White-winged dove	Previous	Period	Septer 20	9/15	20	9/15	10.00 12) First 2)	Refugei)	20
	Predaceous Birds: Golden eagle Duck hawk Horned owl Magpie Raven Erse Red-tailed hawk Rough-legged hawk Marsh hawk Sparrow hawk	Previous ii ii ii ii ii ii ii ii ii	Period " " " " " " " " " " " " " " " " " "	5 4 7 70 10 2 2 4	12/23 12/23 9/15 10/15 12/23 10/15 12/23 10/15	Still " 2 Still " "	Present 10/15 Present 1	Previous F	on Marsh Miros: de Marsh Miros: ced Arabe rebe (Grebe Lue Haron	5 4 7 70 10 2 2 4 4
							Reported	d by F	rank Kenney	

INSTRUCTIONS

(1) Species:

GS

Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. Doves and Pigeons (Columbiformes)

IV. <u>Predaceous Birds</u> (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

Thru

ty December , 19.65 Pablo Months of September Refuge_

(1) Species	(2) Density	83. AJ. J.	(3) Young Produced	(4) Sex Ratio	R	(5) emova:	ls	(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd. Estimated Total	Percentage	Hunting	For Re- stocking	For	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Ring-necked	Croplands175				n 6d , kbi	atori red res	red n	olomnohu.	
Pheasant	Haylands 15 Grasslands.480 670	2.2	n dorc y k Lunter en in Sin ur dir ed	1:2.5				300	
		× to tric	.00gs select	, blanking p	Line of the second	to m	e dayoga hd eider	us jurgani Regigni ar	condition and a GET.
			. Ne desir i	alte al glim las	etra dell'	nali vy 1	rys n	maios ejet Maios ejet	ουτ και Δέε (Δ)
		4 604	named and the	onethic sump	a.(=	stant	Гьео	r empallic	Table tel
	r rind debottory from Leading of this each	part of the		day 1. Add Ma O. Tr	u un g sk	Leann La l	A STATE	tetanita m eksimi	_ 110
		Page 1			June	niar Kirpi	1040	te ebelori	(7) PHASE
			1.62		1-171	r hor	ing 6	M of alls	Control of the contro
									1 1 150

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

(1)	SPECIES:	Use correct common name.
	DENSITY:	Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
(3)	YOUNG PRODUCED:	Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
(4)	SEX RATIO:	This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
(5)	REMOVALS:	Indicate total number in each category removed during the report period.
(6)	TOTAL:	Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
(7)	REMARKS:	Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

^{*} Only columns applicable to the period covered should be used.

blo Refuge_

Year 194 65

Botulism	Lead Poisoning or other Disease
Period of outbreak	Kind of disease
Period of heaviest losses	Species affected
Losses: (a) Waterfowl (b) Shorebirds (c) Other Actual Count Estimated	Number Affected Species Actual Count Estimated
Number Hospitalized No. Recovered % Recovered (a) Waterfowl (b) Shorebirds (c) Other Areas affected (location and approximate acreage)	Number Recovered Number lost Source of infection Water conditions
Water conditions (average depth of water in sickness areas, reflooding of exposed flats, etc.	Food conditions
Condition of vegetation and invertebrate life	Remarks No known disease.
Remarks No known disease.	

PUBLIC RELATIONS

(See Instructions on Reverse Side)

1.	Visits a. Hunting	0	b. Fishing	3_1,900	c. Miscellaneous 1,20	00 d. TO	FAL VISITS 3,100)
la.	Hunting (on refuge 1	ands)	TOTAL Rec	reation, Offic	2. Refuge Participation	n (groups) Steddon Ninepi	pe NR-6	
	TYPE	HUNTERS	ACRES	MANAGED BY		NO OFF		
	Waterfowl	or coartal	flahing.		TYPE OF ORGANIZATION	GROUPS	GROUPS GROUPS	
	Upland Game	mmer core	T DE WINDE	EDECK FOR DEE	Sportsmen Clubs		fon on "shores"	
	Big Game	to refuge	· homell	- considered w	Bird and Garden Club			
	Other MCINI	E crow, fo	x, and sim	lar hunting	Schools			
	Number of perman	Ledwine cy	ech in and	out of hunter	I Service Clubs	or assignmen	t of blinds.	
	Man-days of bow l			pe of hunting,	Youth Groups			
	Estimated man-da					fice of the	ion thereof.	
	Orefuge 2					f passengers	per car) is	
1h	Fishing (area open to				State or Federal Gov	t.	ook ami nosk-	
10.	TYPE OF .	d those oc	ating on m		Other tercoastal Co	anal, unless :	they stop to	
	Ponds or Lakes	e of an in	terest in t	ne area. EXC	3. Other Activities			
	Streams and Shore	es muncina	; Mahing;	cird Watching		or scond nic 115	se official	NUMBER
lc.	Miscellaneous Visits	Helon A		the the on west.	Press Releases	um g gg Radio	Presentations	
	Recreation	L,000	Official	100	Newspapers (P.R.'s sent to)	Exhib	pits	
						- 11		

3-1756

(Rev. 4/63)

INSTRUCTIONS

Item 1: Total of a, b, and c, equal d.

"Visit" - definition. Any person who is on refuge lands or waters during a day or part thereof for the purpose of: hunting, fishing, bird-watching, recreation, business or economic use, official visit, or similar interest. INCLUDE - those who stop within the refuge while traveling on a public highway because of an interest in the area. EXCLUDE - persons engaged in oil or other industry not directly related to the refuge, persons using refuge as most direct route or principal avenue of traffic, and those boating on navigable rivers or the Intercoastal Canal, unless they stop to observe wildlife on the refuge.

Computing visits. Where actual counts are impractical, "sampling" is used with midweek and weekend samples varied by season or weather. A conversion factor of 3.5 (of passengers per car) is used when accurate figures are not available. Each refuge will develop a conversion factor for boats based on range of usage. Count a camper once for each 24-hour period or fraction thereof.

Item la: Acres - of refuge open for each type of hunting.

Managed hunts require check in and out of hunters, issuance of permits, or assignment of blinds.

Other - INCLUDE crow, fox, and similar hunting.

Lands adjacent to refuge. Normally considered within 1 mile or less of boundary, unless established sampling procedures cover a wider area. For big game hunting, the distance may be greater.

- Item lb: Acres of streams open to fishing, if practical; otherwise just miles open. Information on "shores" is primarily for coastal fishing.
- Item lc: Recreation. INCLUDE photography, observing wildlife, picnicking, swimming, boating, camping, visitor center use, tours, etc. TOTAL Recreation, Official, and Economic Use visits under Item 1.

Industrial. INCLUDE persons engaged in industry, i.e., oil industry or factories. EXCLUDE these from Item 1.

- Item 2: INCLUDE the "On Refuge" groups in Items lc and l. In "Off Refuge" column include only those group meetings in which refuge employees actually participate. EXCLUDE these from Items lc and l.
- Item 3: Exhibits INCLUDE displays, fairs, parades, and exhibits OFF the refuge; EXCLUDE those ON.

Refuge	Pablo	Year	19	65
--------	-------	------	----	----

3	(See			s and Recks, tre					ings tic - Upland	.)	9 4	
Species	Amount (Lbs., bus., etc.)	(2) C or R	Date	Method or Source	(3) Total Amount on Hand	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount and Nature of Propagules	Date	Survival	Cause of Loss
												e .

(1) Report agronomic farm crops on Form NR-8 (2) C = Collections and R = Receipts	Remarks:
(3) Use "S" to denote surplus	
Cotal acreage planted: Marsh and aquatic Hedgerows, cover patches	
Food strips, food patches Forest plantings	

76148

3-1758 Form NR-8 (Rev. Jan. 1956)

Pablo

Refuge

Fish and Wildlife Service Branch of Wildlife Refuges

State Montana

Dake

CULTIVATED CROPS - HAYING - GRAZING

County

Cultivated		ittee's Harvested	Governme	ent's Share or	Return	Total	Green M	lanure, and Water-	
Crops Grown	0 14	Bu./Tons	Acres Bu.		Bu./Tons	Acreage Planted	E 100 - 1 100	owsing Crops	Total Acreage
yland Wheat	175 .			in unfenced po the Montana Fis				rmed under	175
	5 6 %		4 7 4 2	elt els 31	- 李昌麗華	2 2 6 4	ELE B		E BY
No. of Permittees:	Agricultur	al Operatio	ons	Haying	Operations	g ki - pag D sig g est and mb eg s to mead vast d of begins a sd		Ag. Land	STATE OF THE STATE
Hay - Improved (Specify Kind)	Agricultur Tons Harvested	al Operation	Cash Revenue	Haying GRAZING	Numl				ACREAGE
Hay - Improved (Specify Kind)	Tons	Acres	Cash	3 8 3 3 3 3 6 1	Num Ani	ber	Grazin	ng Operations	
Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Num Ani	ber mals	Grazin AUM'S 425	Cash Revenue	ACREAGE
(Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING 1. Cattle 2. Other	Num Ani	ber mals	Grazin AUM'S 425	Cash Revenue all rev. toBIA	ACREAGE

DIRECTIONS FOR PREPARING FORM NR-8 CULTIVATED CROPS - HAYING - GRAZING

Report Form NR-8 should be prepared on a calendar-year basis for all crops which were planted during the calendar year and for haying and grazing operations carried on during the same period.

Separate reports shall be furnished for Refuge lands in each county when a refuge is located in more than one county or State.

Cultivated Crops Grown - List all crops planted, grown and harvested on the refuge during the reporting period regardless of purpose. Crops in kind which have been planted by more than one permittee or this Service shall be combined for reporting purposes.

Permittee's Share - Only the number of acres utilized by the permittee for his own benefit should be shown under the Acres column, and only the number of bushels of farm crops harvested by the permittee for himself should be shown under the Bushels Harvested column. Report all crops harvested in bushels or fractions thereof except such crops as silage, watermelons, cotton, tobacco, and hay, which should be reported in tons or fractions thereof.

Government's Share or Return - Harvested - Show the acreage and number of bushels harvested for the Government of crops produced by permittees or refuge personnel. Unharvested - Show the exact acreage and the estimated number of bushels of grain available for wildlife. If grazing is made available to waterfowl through the planting of grain, cover, green manure, grazing or hay crops, estimate the tonnage of green food produced or utilized and report under Bushels Unharvested column.

Total Acreage Planted - Report all acreage planted, including crop failures.

Green Manure, Cover and Waterfowl Grazing Crops - Specify the acreage, kind and purpose of the crop. These crops and the acreage may be duplicated under cultivated crops if planted during the year, or a duplication may occur under hay if the crop results from a perennial planting.

Hay - Improved - List separately the kinds of improved hay grown. Annual plantings should also be reported under <u>Cultivated Crops</u>, and perennial hay should be listed in the same manner at time of planting.

Total Refuge Acreage Under Cultivation - Report total land area devoted to agricultural purposes during the year.

REFUGE GRAIN REPORT

Ž.	(1)	(2) On Hand	(3) Received	(4)		GRAIN DI	5) SPOSED OF		(6) On Hand End of	Propose	(7) or Suitable	LE USE*
	VARIETY* BEGINNING DURING FERIOD TOTA				Transferred	Seeded	Fed	Total	END OF PERIOD	Seed	Feed	Surplus
		3										
					Same and	eter al q	de la companya della companya della companya de la companya della		rate and the	e old com-		
		the wife	- Luis de			Andrews,	170					
		Δ٦	orain s	tored at 1	Vinenine	NT See	Vinepipe	ND	, a			
		451 107	grazii b	borou au i	vino pape	IMIT. Dee I	vruebrbe	Nette	ing m			
		M 1002	100 y , 10 27									
		1 11 15 18										
					28320	e jiha oji	with Transit of		AT LITTER IN			
					L mark		- 1			0 m - 100		
						PUID'S			Wheely And	2010		
									Tractice Article	DAIL FOR		
			N OF LIVE	100	771	in the second			control -p			
			Lau man						ir schots ov			
0)	9	The Lagrantina										
	Indicate shipping											(4)
9)	Grain is stored at				5.1.3 E							

^{*}See instructions on back.

REFUGE GRAIN REPORT

This report should cover all grain on hand, received, or disposed of, during the period covered by this narrative report.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)—55 lb., corn (ear)—70 lb., wheat—60 lb., barley—50 lb., rye—55 lb., oats—30 lb., soy beans—60 lb., millet—50 lb., cowpeas—60 lb., and mixed—50 lb. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels.

- (1) List each type of grain separately and specifically, as flint corn, yellow dent corn, square deal hybrid corn, garnet wheat, red May wheat, durum wheat, spring wheat, proso millet, combine milo, new era cowpeas, mikado soy beans, etc. Mere listing as corn, wheat, and soybeans will not suffice, as specific details are necessary in considering transfer of seed supplies to other refuges. Include only domestic grains; aquatic and other seeds will be listed on NR-9.
- (3) Report all grain received during period from all sources, such as transfer, share cropping, or harvest from food patches.
- (4) A total of columns 2 and 3.
- (6) Column 4 less column 5.
- (7) This is a proposed break-down by varieties of grain listed in column 6. Indicate if grain is suitable for seeding new crops.
- (8) Nearest railroad station for shipping and receiving.
- (9) Where stored on refuge: "Headquarters granary," etc.
- (10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.

Refuge

Pablo

Proposal Number

Reporting Year

ANNUAL REPORT OF PERSTICIDE APPLICATION

Location Total Total Amount Carrier	INSTRUCTIO	ICTIONS: Wildlife Refuges Manual,	secs, 3252d, 3394b and	d 3395.				1965	
Application Target Pest(s) Application Target Pest(s) Acres Chemical(s) Of Application Application Acres Used Acres Used	Date(s) of		Location of Area	Total Acres	Chemical(s)	Total Amount of	Application	Carrier and	Method of

Date(s) of Application	List of Target Pest(s)	Location of Area Treated	Total Acres Treated	Chemica l (s) Used	Total Amount of Chemical Applied	Application Rate	Carrier and Rate	Method of Application
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
-								
		*						
			(9):				•	
							100	
							1	
						. * *		
						-		

10. Summary of results (continue on reverse side, if necessary)

No pesticides of any kind used on the refuge during the year.